

REMARKS

The Applicant respectfully requests further examination and reconsideration in view of the amendments above and the arguments set forth fully below. Claims 1-32 were previously pending in this application. Within the Office Action, claims 1-32 have been rejected. By the above amendment, Claims 1, 9, 17, 25, 31, and 32 are amended. Accordingly, claims 1-32 are currently pending.

Rejections under 35 U.S.C. §102(e)

Claims 1, 4, 8, 9, 12, 16, 17, 20, 24, 25, and 28-32 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,098,066 issued to Snow et al. (hereafter "Snow").

Snow teaches formatting a searchable database into a tree structure of directories. Each directory includes a document vector for each document within the directory. Each document vector is created by splitting the document into terms and associating a weight to each term based on the frequency with which the term is found in the document. In other words, each document is tagged with a list of terms, and their weights, found within the document. The tags are subsequently searched during keyword searches. Snow then performs an adapted version of a keyword search. More specifically, Snow teaches categorizing documents, and then performing a keyword search by first specifying the category in which the keyword search is to be performed and then performing the keyword search within that category.

Within the Office Action, it is stated that the Applicant argues that Snow fails to disclose the limitation of searching documents for specific values of predetermined parameters. It is also stated that the Applicant does not claim this limitation in the independent claims, but instead the Applicant claims this limitation in claim 8. It is further stated that Snow teaches the claim language of claim 8 by selecting one method of search such as keyword search. The Applicant contends that performing a parametric search is just one aspect claimed within the independent claims of the present application related to categorizing individual data items according to one or more navigation paths through a directory tree structure and by one or more "set" parameters.

Setting a parameter refers to defining a specific value for a parameter. Each parameter defines a generic field (parameter field) to which a specific value corresponding to the discrete data item is associated. For example, at a "real estate" node, a parameter field name can be "number of rooms" or "price". The parameter field name is different than the actual value eventually associated with the parameter field name in relation to a specific data item.

Continuing the example, homes for sale may be described in property fliers. A generic property flier can include many parameters used to describe the home for sale, where each parameter is identified by its parameter field name. The generic property flier can include parameters with parameter field names such as “number of bedrooms”, “number of bathrooms”, “square footage”, “address”, and “price”. A particular data item associated with the real estate node can be a property flier for a specific three bedroom home for sale. The parameter with parameter field name “number of bedrooms” has a value of “3”, in this case, and so on for each of the parameters associated with the property flier. In this manner, it is clear that the value of each parameter, which is specific to a particular data item, is different than the parameter field name of each parameter, which generically defines the type of the parameter. Defining a parameter and a corresponding value of the parameter is commonly referred to as setting a parameter, and the association of the parameter and the particular value is referred to as an attribute-value pair.

By the above amendments, the independent claims have been amended to clarify that each data item within the directory structure is categorized by one or more navigation paths through the directory tree structure and by one or more parameters, where each parameter is set with a corresponding value associated with the data item, thereby forming a set parameter.

As discussed above, Snow teaches tagging a document with terms found within the document, thereby forming a document vector that lists the tagged terms in an index. During a subsequent keyword search, the document vector is searched to match the keywords selected for the search to the index of terms defined by the document vector. First, Snow does not teach organizing and categorizing data items according to a specific node, as defined by a navigation path through the directory tree structure, and by one or more set parameters, where set parameters refers to setting a parameter to a specific value associated with the data item. Second, Snow does not teach accessing a node within the directory tree structure by an external application different than the research system.

Each of the items one and two above, are explicitly claimed within the independent claims 1, 9, 17, 25, 31, and 32. Snow does not teach such limitations. Snow is not designed to determine and tag documents according to their attribute-value pairs (parameter field names and their values), and to then search for documents according to specified values of predetermined parameters, as in set parameters. Further, Snow does not teach accessing a node within the directory tree structure by an external application different than the research system.

Within the Office Action, it is stated that Snow teaches accessing the directory using an application programming interface. Specifically, Figures 2 and 9 of Snow are cited to support

this assertion. The Applicant respectfully disagrees with this conclusion. Figure 2 of Snow is a flow diagram of the main program loop utilized in creation of the class hierarchy. There is no hint, teaching, or suggestion within Figure 2 of Snow, or the detailed description of Figure 2, as to using an application programming interface (API) to access the class hierarchy. Figure 9 of Snow illustrates a computer system 134 implementing the directory hierarchy of Snow. Snow teaches that the computer system 134 may be connected to a computer network 142. However, there is no hint, teaching or suggestion within Snow to indicate that the computer network 142 utilizes the directory hierarchy. Even if the computer network 142 can use the directory hierarchy, there is no teaching as to how this would be accomplished. Further, there is no hint, teaching or suggestion that indicates that the computer network 142 includes an application that uses the directory hierarchy within the computer system 134 using an API. In fact, there is no mention of an API for any use within Snow.

Amended independent claim 1 is directed to a method of accessing data within a research system by an application external to the electronic system. The method comprises formatting a searchable database within the research system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system. As discussed above, Snow does not teach organizing and categorizing data items according to a specific node, as defined by a navigation path through the directory tree structure, and by one or more set parameters. Further, Snow does not teach an external application using an API to access and obtain data from the directory tree structure. For at least these reasons the independent claim 1 is allowable over the teachings of Snow.

Claims 4 and 8 depend on the independent claim 1. As described above, the independent claim 1 is allowable over the teachings of Snow. Accordingly, claims 4 and 8 are both also allowable as being dependent on an allowable base claim.

Amended independent claim 9 is directed to research system for providing access to a searchable database by an application external to the research system. The research system

comprises means for formatting the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and means for an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system. As discussed above, Snow does not teach organizing and categorizing data items according to a specific node, as defined by a navigation path through the directory tree structure, and by one or more set parameters. Further, Snow does not teach an external application using an API to access and obtain data from the directory tree structure. For at least these reasons the independent claim 9 is allowable over the teachings of Snow.

Claims 12 and 16 depend on the independent claim 9. As described above, the independent claim 9 is allowable over the teachings of Snow. Accordingly, claims 12 and 16 are both also allowable as being dependent on an allowable base claim.

Amended independent claim 17 is directed to research system for providing access to a searchable database by an application external to the research system. The research system comprises a research server configured to format the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system to access one or more nodes within the directory tree structure and to obtain data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system. As discussed above, Snow does not teach organizing and categorizing data items according to a specific node, as defined by a navigation path through the directory tree structure, and by one or more set parameters. Further, Snow does not teach an external application using an API to access and obtain data from the directory tree structure. For at least these reasons the independent claim 17 is allowable over the teachings of Snow.

Claims 20 and 24 depend on the independent claim 17. As described above, the independent claim 17 is allowable over the teachings of Snow. Accordingly, claims 20 and 24 are both also allowable as being dependent on an allowable base claim.

Amended independent claim 25 is directed to network of devices for providing access to a searchable database by an application external to the research system. The network of devices comprises one or more computer systems configured to establish a connection with other systems, and a research server coupled to the one or more computer systems to format the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system to access one or more nodes within the directory tree structure and to obtain data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system. As discussed above, Snow does not teach organizing and categorizing data items according to a specific node, as defined by a navigation path through the directory tree structure, and by one or more set parameters. Further, Snow does not teach an external application using an API to access and obtain data from the directory tree structure. For at least these reasons the independent claim 25 is allowable over the teachings of Snow.

Claims 28-30 depend on the independent claim 25. As described above, the independent claim 25 is allowable over the teachings of Snow. Accordingly, claims 28-30 are also allowable as being dependent on an allowable base claim.

Snow does not teach accessing a node within the directory tree structure using a query string. Snow teaches searching a database according to a user query, where the user query comprises a number of documents desired and one or more search items, and may include a user selected category (Snow, col. 8, lines 4-7). A query is not the same as a query string. The user query of Snow is nothing more than the search parameters used in the keyword search process described above. In contrast, a query string as claimed in the present invention is described as a specific query language to navigate through the directory tree structure to access a specific node or a discrete data item within the directory (Specification, page 30, lines 26-27). The structure of the query language of the present invention is preferably similar to that of SQL (structured query language), but it is specific to the combined technologies of accessing the directory tree structure

and setting parameters for a search (Specification, page 31, lines6-8). Further, the independent claim 31 of the present application claims a query string, where the query string defines a navigation path through the directory tree structure to access a specific node within the directory tree structure. Clearly, the query string of the present invention defines the results of a search process, that is the specific node defined by its path through the directory tree structure. The user query of Snow defines search parameters to be used in a subsequent keyword search.

Amended independent claim 31 is directed to a method of accessing data within a research system by an application external to the research system. The method comprises formatting a searchable database within the research system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the applications programming interface accesses the one or more nodes within the directory tree structure using a query string defining a navigation path through the directory tree structure to access a specific node within the directory tree structure. As discussed above, Snow does not teach organizing and categorizing data items according to a specific node, as defined by a navigation path through the directory tree structure, and by one or more set parameters. Further, Snow does not teach an external application using an API to access and obtain data from the directory tree structure. Still further, Snow does not teach using a query string to access a specific node within the directory tree structure. For at least these reasons the independent claim 31 is allowable over the teachings of Snow.

As acknowledged in the Office Action, the Snow reference applies to a selective one search methodology, a keyword search. However, Snow does not teach a search model that inclusively has four different types of search capabilities including a keyword search capability, a hierarchical search capability, a dichotomous key search capability, and a parametric search capability. It is acknowledged in the Office Action that Snow does not teach at least the dichotomous key search.

Amended independent claim 32 is directed to a method of accessing data within a research system by an application external to the research system. The method comprises formatting a searchable database within the electronic system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein accessing one or more nodes is performed utilizing a search module, the search module includes a keyword search capability, a hierarchical search capability, a dichotomous key search capability, and a parametric search capability. As discussed above, Snow does not teach organizing and categorizing data items according to a specific node, as defined by a navigation path through the directory tree structure, and by one or more set parameters. Further, Snow does not teach an external application using an API to access and obtain data from the directory tree structure. Still further, Snow does not teach using a search module including four different types of search capabilities. For at least these reasons the independent claim 32 is allowable over the teachings of Snow.

Rejections under 35 U.S.C. §103(a)

Claims 2, 3, 5-7, 10, 11, 13-15, 18, 19, 21-23, 26, 27, and 29 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Snow in view of U.S. Patent No. 6,292,796 issued to Drucker et al. (hereafter "Drucker").

Claims 2, 3, 5 and 7 are dependent on the independent claim 1. Claims 10, 11 and 13-15 are dependent on the independent claim 9. Claims 18, 19 and 21-23 are dependent on the independent claim 17. Claims 26, 27 and 29 are dependent on the independent claim 25. As discussed above, the independent claims 1, 9, 17, and 25 are each allowable. Accordingly, claims 2, 3, 5-7, 10, 11, 13-15, 18, 19, 21-23, 26, 27, and 29 are all also each allowable as being dependent on an allowable base claim.

For the reasons given above, Applicant respectfully submits that claims 1-32 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, he/she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,
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